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Appl. No.: 10/765,384
TC/A.U.: 3733
Examiner: Tara George

Proposed amendment to claim 5 in response to Office Action dated 3/16/2010 --

5. (proposed amendment) A computer-assisted method of determining changes between pre-operative and post-operative relationships between a femur and a pelvis, suitable for use during a hip arthroplasty operation, comprising the steps of:

maneuvering the femur into a natural reference position;

securing a trackable marker having at least three optical tracking references to the femur by gripping the femur without penetrating through the outer cortical shell of the femur;

touching, with a trackable probe, at least three superficial points corresponding to respective recognizable anatomic features of the pelvis and tracking said probe with a non-radiological locating system;

processing the tracking data for said trackable probe with software executable on a computer so as to define a pelvic plane without reference to previously obtained radiological data;

measuring, by optically tracking said trackable marker with said non-radiological locating system, pre-replacement femoral parameters in relation to the pelvis;

after implanting a prosthetic, returning the femur to said natural reference position;

again measuring, by optically tracking said trackable marker with a non-radiological locating system, post-replacement femoral parameters in relation to the pelvis; and

comparing said pre-replacement and said post-replacement parameters in a computer model.